# Mitchell Burk

#### **EXPERIENCE**

### **Purdue University Northwest**

MAR. 2020 - AUG 2021

### **Machine Learning Researcher**

- Using word2vec on the COVID-19 Open Research Dataset (Python, TensorFlow, word2vec, Ubuntu. NLTK)
- Research in visualizing multi-dimensional word embeddings (TensorFlow, vec2graph, Reinforcement Learning, DNN/CNN)
- Assisted in various other tasks when asked of me such as account creation, automation, etc.

#### **Purdue University Northwest**

SEPT 2018 - NOV 2019

#### **Security Specialist**

- Responded to incidents involving spam/phishing emails, compromised accounts, suspicious network activity
- Wrote code to parse unorganized reports (*Python, Pandas, Anaconda*)
- Record keeping of weekly firewall reports and malware scans (Checkpoint, Malwarebytes, McAfee)
- Assisted in the creation of weekly "Security Tips" sent out to all faculty, staff, and students

### All Information Services Inc. (AIS)

MAY 2017 - AUG 2017

# **Junior Network Analyst**

- Installed networking equipment for a public school district (Access Points, Switches, Racks)
- Organized data closets
- Assisted with Cisco Switch configuration

# **PROJECTS**

# Registration Of Users To High-Performance Cluster

JAN 2021 - MAY 2021

# Automating Software Installation & Configuration

JAN 2021 - MAY 2021

# Creating And Deploying Custom Python Environments

JAN 2021 - MAY 2021

# **Data Analysis And Visualization**DEC 2019

**Ransomware Creation** 

FALL 2018

- Registered and managed required individuals to a private high-performance cluster for machine learning purposes (*Linux*)
- Communicated with the high-performance cluster team for troubleshooting
- Created bash script that would pull software installations, give executable permissions, and install/configure software for all users

(Linux, Bash)

- Created custom python environments that would install various libraries for a class of 30 students
- Environments were then deployed to the users with a script for installation (Python, Anaconda, Linux, Bash, TensorFlow)
- Parsed an XML document using Python to visualize data (Python, Pandas, Matplotlib, XML, GitHub)
- Created a basic ransomware program that would attack a Linux virtual machine (Python, Linux, VMware, GitHub)
- Would prompt victim machine for a password. If the wrong password was entered, the system would be deleted (Python, Linux, VMware, Security, Encryption)

# **ACADEMIC ACCOMPLISHMENTS**

Dean's List Acquired:

Fall 16, Spring 17, Fall 17, Spring 18, Fall 18, Spring 19, Fall 19, Spring 20

Semester Honors Acquired:

Fall 16, Spring 17, Fall 17, Spring 18, Fall 18, Spring 19, Spring 20

#### **EDUCATION**

Purdue University Northwest AUG 2016 - MAY 2020

GPA: 3.71 (CUM LAUDE)

#### Bachelor's

Computer Information
Technology

# SKILLS

Python, Linux, Security, Pandas, Automation, GitHub, Bash, MySql, C, JavaScript, Django, Splunk